About the legal protection of the brown bear in Republic Slovenia and its violations and some legal views of protection of the animals

Vladko Began*

Summary: 1. Some introductory words about the brown bear; 2. Legal protection of the brown bear in Slovenia; 3. Violations of the protection of the brown bear; 4. More On Hunting; 5. Animals in the legal order of the Republic of Slovenia.

1. SOME INTRODUCTORY WORDS ABOUT THE BROWN BEAR:

The brown bear (*Ursus arctos L*.) is a representative of the class of mammals (*Mammalia*), row of beasts (*Carnivora*) and the family of bears (*Ursidae*) and it is the most spread specie of the brown bears. In the past

^{*} Slovene Attorney. Animal Rights Defender at the Society for the Liberation of Animals and their Rights (Slovenia).

it has populated the area of the entire Europe (except the big islands such as Ireland, Island, Corsic and Sardinia), today it has vanished from the most of the areas. With the enhancement of human population also came to a loss of the adequate habitats because of the shrinking of the woods of intensive farming and intensive hunt of this animal. Today there are 50.000 bears living across the Europe (approximately 14.000 out of Russia), on a territory of 2,5 million km².

In Slovenia the population of the brown bear is representing the most western part of the population of the brown bear in Middle Europe. On this area the bear specie has preserved because of the suitable life environment, the wide combined woods of High Karst. By official evaluation of the Institute for the woods of Slovenia there are approximately 500 to 700 bears living, but many experts think that there are much less.

The bear is basically a very timid animal and prefers to avoid human contact. It never stalks the human or hunts it for food, it only attacks him if it feels endangered. For the extremely good smelling and hearing abilities the bear normally avoids human so the encounterings with the bear are rare, also on the areas where it is relatively frequent.

2. LEGAL PROTECTION OF THE BROWN BEAR IN SLOVENIA:

2.1. The brown bear who also belongs to the great beasts is an endangered specie and so, for its existence is in danger, a protected specie and it does not belong among hunting species. According to Slovene *Rule article about the classification of endangered vegetal and animal species into the red list*, the brown bear is among the endangered species and it has a short label E. It is characteristic for this category of threatening that existence of this specie on the area of Republic Slovenia in future is not possible if the causes of the threat are going to continue, because the number of this specie has reduced to a critical level. Protection of the brown bear is set by the Slovene *Article about the free living protected animal species*, which has been issued on the basis of the *Law of preservation of nature*, and it brings to Slovene legal order some

guideline clauses of the Council 92/43/EGS (May 21st 1992) about the preservation of natural habitats and free living animal and vegetal species, which Slovenia, for its entrance to the European Union (EU) in 2004 had had to transfer into the internal legislation. The protection of the bears is also set by the Convention about the protection of free living European flora and fauna and their vital environment (Bern convention), which Slovenia has transferred into its internal legal order by ratification in 1999. Besides the mentioned legal acts the situation of the brown bear is also processed by other Slovene legal acts such as the Resolution of National program of protection of the environment 2005-2012, the Law about the woods, the Law about deer and hunting, and specially important Rule article about the seizure of subjects of the brown bear specie from nature and already mentioned the Rule article about the classification of endangered animal and vegetal species into the red list, and also some international acts such as Alpine convention - Protocol about the implementation of the Alpine convention from 1991 about the protection of nature and regulation of landscape.

2.2. The main characteristic of Slovene *Article about the protected* free living animal species which is the main rule regarding protection of protected animal species in Slovenia, is that it is forbidden to consciously hunt, poison, execute, take away from nature, hunt, capture or upset the animals of protected species. There are certain exceptions to this rule (for ex. labours tat are performed due to the rules...) and special exceptions that specify when the intervention into the population of the protected animal specie is exceptionally allowed. Interventions into this population are allowed strictly exceptionally and in specified cases under strict conditions. Execution, take away from nature, capturing, upsetting, poisoning or hunting the animal is only allowed, by determination of Slovene ministry for the environment and space or Agency of Republic Slovenia for environment, if there is no other option and these handlings are not hurting the maintenance of positive condition of the population for: ex. insuring the benefits of protection of animal and vegetal species and maintaining habitat types; prevention of serious damage, specially on crops, livestock, woods,...; insuring health and safety to the people, or for any other necessary reasons of predomination of public interests which can also be social or economic, and for beneficial consequences of fundamental meaning for the environment; selective and limited take away of the animals from nature for balancing the size of the population with the environment, under highly secured conditions and in limited number;... Similar, but not he same, interventions to protected animal species are specified in already mentioned directive of the Council 92/43/EGS, as also the Bern convention.

3. VIOLATIONS OF THE PROTECTION OF THE BROWN BEAR:

3.1. Although the brown bear is an endangered specie and for that protected by many regulations and although interventions into the population of the brown bear with killing is possible only exceptionally and under precisely determined conditions, the government orders to kill a bigger number of the bears each year. Over 400 bears were killed in the last few years, only in years 2006 and 2007 the Minister for the environment and space ordered to kill 100 bears each year for the reason of regulating the size of the population with the environment.

3.2 The mentioned killing, which is based on the *Rule article about the take away of the subjects of the specie of the brown bear (Ursus arctos) from nature* is illegal and contradictory to the Slovene constitution and therefore there were filed two initiatives for the judgement if the mentioned Rule article is legal, to the Slovene constitutional court, and also a part of the Article about protected free living species, which is the basis for this rule article. The court has accepted the initiative of the killing in year 2006 (the initiator has the status of society which works in the public interest) and will process it with priority, but for the initiative of the killing is also contradictory to the also already mentioned directive of the European union, and because of that there was also filed a complaint to the General directory for the environment of European committee, which accepted the complaint and now runs a

procedure against Slovenia. The complaint to the mentioned directory was filed for both years, 2006 and 2007. In the following there are introduced in short, a few most important violations of both initiatives that were filed to the Slovene constitutional court.

3.3. With the change of the Article about free living animal species there was made an entry of the case of intervention into the population of the brown bear, when for a reason of selective and limited take away of the animals from nature because of balancing the size of the population with the environment, under strictly controlled conditions and in limited number. Selective and limited take away of animals from nature for balancing the size of the population with the environment is just another name for the condition or state when the number of animals is too big for the environment. Simply said, there are too many animals and that is why they should be killed. This is the legal basis on which is based the killing of the bears. But this case is contradictory at least regarding the basic definition of the bear as an affected specie, for which is characteristic that its number is reduced to a critical level or its population is quickly reducing in a larger part of the area. Besides the government does not even know the number of the bears, although that could be found out, it only exist an evaluation of the number which was more or less refuted by the experts. There are no proves that there are too many bears in Slovenia, so this case of intervention into the population is not legal. Right the contrary. Republic Slovenia does not even know the favourable state of the specie the brown bear, which was stated public, in the written message of the Ministry for the environment and space from day 23.6.2006, where was clearly stated that the favourable state of the bears should be defined as soon as possible, in other words to define the balance state of the population for which it is responsible for. This case of intervention into the population is also contradictory to the 16th article of the directive of the Council 92/43/EGS, because in this document there is no sign of taking away the animals from nature for the regulating the population with the environment.

3.4 Intervention into the population of the bear is, due to the rules, possible only under two conditions: that there is no other

possibility and if that does not hurt the preservation of the positive state of the bear population. None of the conditions is fulfilled, which is explained in the following.

3.4.1 Republic Slovenia does not even know the favourable state of the specie the brown bear, nor does not know how many bears there are in Slovenia. As already mentioned it was stated public that it should be defined how many bears there are in the area of constant and preliminary presence as soon as possible, in other words, to define the balance state of the population. The population of the brown bear is not in a favourable state, which is clearly evident from the Rule article about the classification of the endangered animal and vegetal species into the red list that the population of the brown bear has reduced to a critical level. So logically, the government can not pretend that there are too many bears in the environment or that the specie is in a favourable condition. The government is evaluating that there are between 500 and 700 bears, but that is not the actual number, and besides, many experts say that the evaluation is exaggerated. So out of the stated is clearly evident that the condition, that the killing of the bears is not harming the positive state of preservation of the population of the brown bear, is not fulfilled. If the government does not know the favourable state of the specie of the brown bear, then how can it claim that the killing of 100 bears is not going to harm the positive state of the population? It is necessary to say that the viability of Slovene part of the population is insured only in the frame of the dinar population, into this group belong also the bears in Croatia and Bosnia and Hercegovina, where the minimal viability of the population is at least 1000 subjects. In Slovenia there are much less bears than 1000 subjects, in Croatia the state of the bears has aggravated, and for Bosnia there are no records of what is going on with the bears at all.

3.4.2. The second condition is not fulfilled either; this would be the evidence that there is no other possibility except an intervention involving culling into the brown bear population. But other possibilities of course do exist. Not only does the state legally and formally justify bear culling on the grounds that this will harmonise the number of bear population with its environment, it also, indirectly, excuses it by

asserting that bears cause great damage to agriculture and the raising of small cattle and are, moreover, dangerous to people. However, the two reasons given are not sufficient to justify the cull, as there are other possibilities of preventing damage or conflict situations between bears and people. These other possibilities are stated in the Strategy of the management of brown bear (Ursus arctos) in Slovenia (strategy) which was adopted by the government of the Republic of Slovenia and should also be respected by the minister for the environment and spacial planning who issued the disputable statute and, respectively, decreed the culling of a hundred (100) of bears. The possibilities include, for example, capture of live animals and their transfer to a more suitable area, education of the local population on bear biology and ecology as well as on recommended handling of encounters with the bear, elimination of all factors that attract bears to human settlements, reintroduction of carrion dump sites, reimbursement of damage to farmers, property insurance for persons living within the bear areal, management of dump disposal sites, priority of cattle vs. small cattle (a bear does not attack cows, but attacks sheep)... Among other possible measures there are, for example, shying away or deterring of bears, but it is also possible to recur to castration, sterilization or contraception in bears intended for killing. Of course these measures are not in the interest of bears either, but are still better than culling.

In Slovenia, the opinion prevails that bear culling or, more accurately, increased cullling, would reduce conflicts between people and bears. It is questionable, though, if this is true. Namely, in the nineties of the previous century, an interesting study on the black bear population was carried out in the USA and Canada. Its purpose was to determine factors which reduce conflict situations between man and bear. The first hypothesis was hunting. In some federal states they therefore increased the number of hunting kills. The second hypothesis was an educational program for local people in order to teach them proper handling of bears, coexistence, where they can dispose food waste and where they can not... The program was carried out in most renowned national parks. And what were the results of a several years lasting research? In all federal states (Virginia, Pennsylvania, New York, Ontario and Minnesota) where the kill was increased, the number of conflicts between man and bear increased too. Many expected that a smaller number of bears would reduce the conflicts but they, on the contrary, became more frequent. In all national parks (Yellowstone, Yosemite, Great Smoky, Juneau Alaska, Elliot Lake, Nevada - Lake Tahoe Basin, New Jersey) in which educational programs on coexistence with bears were introduced, the number of conflicts diminished drastically. In the Great Smoky Park not a single conflict has been reported since the year 1991.

Hunting and culling, respectively, obviously increase conflicts between bears and people and although the study was carried out in America, the results can also be accepted as valid for Slovenia. So a question can be raised whether bear culling in the year 2007 will not additionally increase the number of conflict encounters. The more so if we consider the fact that despite an ever increasing culling the number of conflicts is steadily increasing as well.

3.5. The disapproved statute determines a number of 83 bears to be killed in the central area of bear's habitat and 17 bears in the marginal area. A hundred (100) altogether. This number, however, is illegal, as it is, according to the strategy of the brown bear management in Slovenia, much too high or wrongly calculated. According to the strategy mentioned, which the disapproved statute must comply with on the basis of article 7 of the regulation, the cull rate for the central area is to be determined in percents with respect to the number established by experts, this being the average between the counted and the estimated population. It is obvious from the expert opinion for the year 2007 issued by the Slovenian Forest Institute, that the number of bears counted at permanent counting sites in Slovenia/which are the only ones meritory and relevant for the year 2006 (there are three countings on the average)/, amounts to 146 and the estimated number of bears in Slovenia is from 500 to 700. This means that the basis for determining the number of kills, if the estimated number of bears in Slovenia is 500, is 323, while if the estimated number is 700, the basis to be taken into account is 423. So, basing on number 323, not more than 48 bears could be killed, while basing on number 423, only 63 bears, in the central, marginal or some other area of its habitat, taking

into account the percentage 15 – which is, according to the strategy, the highest possible percentage for the central area. Even if the percentage for marginal areas was 30, as determines the disapproved statute, the results would not be essentially different, as a substantially lower number of bear culls is foreseen for the marginal area. We are speaking about the overall number of course. Even if a different basis was taken, i.e. all the bears counted (in permanent and other counting sites), which in the year 2007 amounted to 302 (three countings) compared to the estimation 661 made by hunting ground managers, which is 481, the culling could amount to, with the presumption of, according to the strategy, the highest possible cull in the central area (15%), only 72 bears in Slovenia as a whole. It is obvious that the number of bears to be culled, amounting to one hundred (100), as foreseen by the dispproved statute, is illegal. A mistake in calculating is obvious from the fact that the statute takes for its basis only the estimated number and not the number established by experts, which is the average between the counted and the estimated population. Although the disputable statute at a different place offers a different formula for determining the basis for decision on culling (basis determined by experts), this is still illegal because the formula that has to be used here is the one indicated in the strategy. An institutional dispute on this illegality is under way.

3.6 The disputed statute determines that 83 bears must be eliminated from the central area of the bear's habitat and 17 from the marginal area. It is not known how this number was obtained, as the already mentioned expert opinion by the Forest Institute does not say anything about the number of professionally established number of bears in the central and, respectively, in the marginal area. Even theoretically, this number can not be established because the expert opinion given by the Forest Institute does not provide relevant data for it. It mentions 167 permanent counting sites but does not tell where they are: either in the central or in the marginal area of the bear's habitat. Yet this is essential, as the culling rate is to be determined in compliance with a professionally established number of bears living in the central and in the marginal area. The culling is thus not determined

according to the total number, the total number is a sum. Let me repeat: as it is not known where permanent counting sites are, it is not possible to determine the number of bears counted in the central and the marginal area and consequently there are no grounds for culling, as the number of bears counted in the central and in the marginal area is part of the calculation formula, which is defined by the strategy of the brown bear management. The basic statute in its 3rd article also states that culling is to be determined according to the number of bears living in the central and, separately, in the marginal area of the bear's habitat.

3.7 Pursuant to the law on nature protection (article 14) it is forbidden to reduce the number of animals of a certain species to the point that it becomes endangered. As the brown bear species is an endangered species included in the red list and therefore protected, this, in the context of the previously mentioned, clearly means that the kill can by no reason be permitted. Because, if it is not allowed to reduce the number of individuals of a certain species to the point where it becomes endangered, this is the more so in case of an already endangered animal species is in essence contradictory to the general protection regime from the 1st and 2nd paragraph of article 14 of the law on nature protection. A different kind of intervention into the population, however,would of course be possible, i.e. capture of live animals.

3.8 In the process of adopting the statute, even more mistakes were committed on the part of the minister of the environment and spacial planning. Namely, the minister should have, according to the regulation, taken the decision on the cull for the year 2007 on the basis of an expert opinion provided by the Forest Institute of Slovenia. The latter suggested a cull of 106 bears, while the minister decided for 100 bears, which means he didn't accept the opinion of the institute on the number and therefore acted in contradiction with the regulation. According to legislation and other legal acts, the ministry should also have put the thesis or the draft of the basic statute on their web site and allow a public debate on the subject, yet they did not do so.

3.9 The decision on the culling of 100 bears is, however, not only in contradiction with the law or sublegal acts but also with the

constitution of the Republic of Slovenia. Namely, the constitution contains some 'animal-friendly' provisions, a short description of which is the following:

3.10 In article 5 of the constitution it is stated, among others, that the state cares for the preservation of natural wealth. Part of this natural wealth are also animals. Bears as animals are part of our natural wealth and the state must therefore provide for their preservation. By killing them, natural wealth is not preserved, it is reduced. Of course we have in mind each individual bear and not the species as an abstract term, as a species is not part of natural wealth, it is only a word invented by man and, besides, the constitutional provision mentioned does not refer to species. The disputed statute which should be preserving the natural wealth, while the role of all state organs in Slovenia is to act in accordance with and respect the constitution, this statute is in breach of the constitutional provision mentioned as it does not care for the preservation of the brown bear as an individual living being and thus part of national wealth but, on the contrary, reduces the number of animals and thus destroys the natural wealth. And it also curtails the biotic diversity as it reduces and destroys, respectively, the diversity within the species.

3.11 In article 5 it is, among others, stated that the state creates possibilities for a harmonious civilisational and cultural development of Slovenia. If the state, via the disputed statute, allows intentional killing of animals or even gives an order to do so, this cannot lead to a harmonious civilisational development, as the latter can be brought about only by positive acts and not by hatred, the consequence of which is killing of living beings. Any tolerance of hatred and killing of living beings in our society hinders harmonious civilisational development of Slovenia and leads to destruction of the society. This is now becoming more and more obvious. Killing of living beings takes away credibility of the state. It can not be part of a culture and so can not be part of a culture the killing of animals.

3.12 In article 63 it is, among others, stated that inciting violence or war of any kind is unconstitutional. The fact that the state allows, or even orders, in the disputed statute, culling of a considerably large

number of bears means that it encourages violence, because killing of animals is violence, animals are not put to death painlessly and without the use of force, on the contrary, their putting to death involves cruel force and, respectively, violence. Each unnatural animal death is, in essence, cruelty. The statute is unconstitutional also in this respect.

3.13 Article 72, among others, states that protection of animals against cruelty is regulated by law. From the constitutional provision mentioned it is obvious that the state does not allow cruelty to animals, irrespective of whether they are domestic, free-living, or other. According to the Dictionary of the Slovene Literary Language, cruelty to animals means causing physical or psychical discomfort, suffering. Each intentional killing of an animal entails cruelty, as the animal suffers while dying, it does not die instantaneously, only theoretically a shot or some other physical agent can cause instantaneous death. If the animal is only injured, for example during hunting, it can suffer enormously and for a very long time before the mercy shot. On the other hand, cruelty is also causing psychical suffering – slaughter animals for example feel that a violent death is approaching and this provokes fear, they are under stress, so they suffer psychically before physical suffering begins.

4. MORE ON HUNTING

4.1 It is more and more obvious that hunting is unnecessary, that it is even harmful to nature and to the society as a whole. Recent reasearch by ecologists has shown that animals possess an inner mechanism by which they regulate the number of their offspring. In elephants, for example, it has been established that population growth is not determined by famine or death, it depends on the females and their readiness to mate at the beginning of their sexual maturity. If overpopulation threatens, the growth rate diminishes. Similarly with the deer, steinbock (rock goat), elk(moose) and other big mammals. Or, as stated by the Bavarian Forest Administration (Germany), hooved game are capable of a very subtle birth regulation – if there are too many animals, does give birth to fewer fawns, or in one year they do not have offspring at all, become sexually mature at a later time or give birth to more male than female fawns. There is no species that would breed beyond measure or without aim. Many bird species refrain from hatching if thus requires the number of the species population. If many of their peers have been shot, 'stand-by' individuals take action and again we have more animals than there were before the bird kill. In almost all world countries hunting in natural reservations is forbidden, and yet no disbalance occurs. So in the Swiss canton of Geneva, where hunting has been forbidden since the year 1974, no excessive animal growth has so far been established. The example of this canton is very important, so a little more about it: it is, namely, a canton, situated in a cultural landscape where natural laws, according to hunters' opinion or the opinion of the state, can in no way be followed. This canton, however, proves that this is not true. The canton covers an area of 282 square km and has 430 000 inhabitants, the town of Geneva itself covering 159square km with 186 000 inhabitants. The prohibition of hunting was followed by measures in the field of nature protection (restoration of some agricultural areas) and after 10 years of non-hunting they have found out that non-hunting is convincing on a largest possible scale and the vast majority of the country considers it as absolutely positive. The nature has recovered considerably, flora and fauna are harmonized, the only problem are boars, but they are a problem in a broader context which is being solved by a very considerate putting to death of individual animals, without boar hunt practices. Also reimbursement for damage is similar to that in other cantons in Switzerland where hunting is practised.

4.2 Finaly some words about the influence hunting has on animals with the example of the Watchung Reservation in the USA. Hunting in this reservation was forbidden for almost a century and in the non-hunting period there were never more than a hundred deer in this area. This number was never exceeded. Since the year 1993, hunting in the Watchung Reservation has again been allowed. In the period from 1993 to 2001, hunters killed or injured more than a thousand deer in the area. In the year 1994 there were exactly 139 deer in the reservation measuring 4600 acres. They were counted from the air with

the use of a special infrared device. How is it possible that during the hunting period, within only 9 years (1993-2001), their number suddenly increased to more than a hundred/thousand? Since more than a thousand were killed in the nine-year period, while hundreds of them probably fled to a neighbouring area from fear of the hunters? Hunters were killing mainly pregnant females and then they pulled the foetus from their womb. In the fist year females were pregnant with one foetus. At the end of the second hunting year 57 % of the fecondated females that were killed were bearing two or even three foetuses. After the third year, in the wombs of 60% of the killed does two foetuses were found, while 8 % of does were bearing three foetuses. In the following years two or three foetuses were found in practically all of the killed fecondated does. Why did this happen? The reason is simple. In the does, hunting provoked fear from extinction of the species. They responded by giving birth to several offspring even outside the mating season. The killing of animals, males or females, therefore does not reduce their number, on the contrary, the number of animals increases.

5. ANIMALS IN THE LEGAL ORDER OF THE REPUBLIC OF SLOVENIA

Some more words on animals in the legal order of Slovenia. In this order animals are part of property law and do not have their own rights. Animals are explicitly dealt with in the Constitution of the Republic of Slovenia stating in its article 72 that protection of animals from cruelty is regulated by law. This constitutional provision is very important for the treatment of animals. It is, namely, logical, that, if protection from cruelty is to be regulated even by law, cruelty is not allowed. There are some other constitutional provisions which may indirectly influence animal situation and they have already been mentioned, yet this provision is the most important. Although according to our constitution cruelty should not exist, there is unfortunately a law which legalizes it. Instead of protecting the animals, i.e. their life, health and welfare, as it should do pursuant to its article no.1, the constitution allows cruelty in the form of breeding of animals for



food, leather and fur production, hunting, diabolic experimentation on animals and other forms of animal abuse. Although the law on protection of animals should be based on generally asserted notion of cruelty, defined by the

Dictionary of the Slovene Literary Language, according to which cruelty means causing psychical or physical discomfort, i.e. suffering, it has, on the contrary, altered this notion and defines as cruelty only, among others, a longer or repeated suffering and not each suffering regardless of the time it lasts. This tiny but extremely negative alteration in the contents of the term 'cruelty' entails, in Slovenia, every year, a loss of a little less than 30 million animal lives, slaughtered in slaughterhouses, about 100 000 animals killed by hunters and about 10 000 animals which die in laboratory experimentations.

It is obvious that such law is in contradition with the constitution as it does not regulate protection of animals from cruelty as it should, but with it cruelty is legalized. Although it does contain certain rules which partially protect life, health and welfare of animals, this is not enough. The constitution requires strict protection from cruelty and not a partial one. And this strict protection would not be to the detriment of people, on the contrary, it would considerably improve the environment and nature and of course people's health. It is namely known that meat is a risk factor for many civilisational diseases, it is hence, harmful, while stockbreeding is the greatest environmental pollutant causing more green house gas emissions destroying the climate than transport at world scale. "If all people became vegetarians we could control global warming", wrote British physicist Alan Calverd in Physical World. Abolition of stockbreeding would bring about vegetarianism by which people would become healthier, which would also mean that smaller quantities of drugs would be needed. Animal experimentation would more or less disappear, and of course hunting, as vegetarians are, generally speaking, not as violent as meat-eaters.

There is a provision in Slovene legislation stating that everybody's duty is to take care of their health. Does somebody who consumes meat, the harmfulness of which has been scientifically established, cares for his/her



health? If people respected this legislative obligation, the treament of animals and the conditions they live in would improve very rapidly. As the majority of people do not fulfill this obligation, the state should intervene and provide for the implementation of the law. To the benefit of people, nature and animals.Vegetarianism, and the more so veganism, is an excellent protection of animals and is, in essence, also supported by the Slovene constitution – if read properly. It also stipulates, in its article 74, that no economic activity should be performed in contradiction with the public benefit. Is stockbreeding a public benefit, an activity destroying the environment and climate, the product of which is a risk factor for many civilisational diseases and which causes extreme suffering of animals and streams of blood, animal farms, moreover, being time bombs in terms of various very lethal diseases not only affecting animals but also humans? Would the deadly bird flue which threatens the world appear if there was no stockbreeding? Stockbreading is



thus an activity which can straightforwardly be designated as one which is bringing about social damage of extremely great proportions and representing the main threat to our present civilisation.